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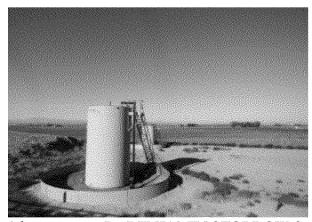
From: wq-news@googlegroups.com Sent: Wed 9/17/2014 9:31:07 PM

Subject: [WQ News] Fracking absolved of blame elsewhere, but in Pavillion it's not so simple



Fracking

Fracking absolved of blame elsewhere, but in Pavillion it's not so simple



9 hours ago • By BENJAMIN STORROW Star-Tribune staff writer

A pair of national studies concluding fracking did not contaminate drinking water supplies in Pennsylvania and Texas have little bearing on an ongoing investigation into the dirty water found near Pavillion, according to industry experts.

One study, done by the U.S. Department of Energy in western Pennsylvania, found chemicals used to fracture gas-bearing rock remained 5,000 feet below aquifers used for drinking water.

A second, looking at 133 wells in Pennsylvania and Texas, found drinking water was polluted by faulty well construction and not because of fracking.

But experts said it is harder to determine what polluted the drinking water outside Pavillion. Fracking, the process where water, sand and chemicals are injected underground at high pressure, breaking open oil and gas bearing rock, remains one of several potential sources of contamination.

"Pavillion is a much more complicated place than where we looked at," said Robert Jackson, a

professor of environment and energy at Stanford University, who contributed to the second study in Pennsylvania and Texas. "The biggest difference is how near the surface the fracking occurred and how close to peoples' water was it."

In the Pennsylvania and Texas wells, fracking occurred 1 mile from drinking water sources. Fracking in Pavillion happened within 1,000 feet of the surface while some water wells nearby were drilled to depths of 750 feet, he said.

The shallow depths mean fracking cannot be ruled out as the cause of contaminated water supplies in the Pavillion area, as it was in Texas and Pennsylvania, Jackson said. But that doesn't necessarily implicate fracking either, he added, noting poor well integrity and disposal pits could also be to blame.

"I actually think the waste water pits are an important part of story at Pavillion," Jackson said.
"You have decades of diesel and other fluids sitting around in the sludge of those pits. That's a very direct source of chemicals into the ground, and potentially into the water."

The U.S. Environmental Protection Agency released a preliminary report in 2011 linking fracking to groundwater contamination outside the central Wyoming town. After withering criticism from industry and state officials, who questioned EPA's testing methods, the agency backed away from its investigation. It turned the inquiry over to Wyoming regulators last year.

The state is now conducting three studies into the matter: one into well integrity, another into disposal pits and a third into water quality. A draft of the well integrity report released earlier this summer found wells in the field were properly constructed. But it raised other questions, specifically noting that the protective casing on several gas wells was shallower than nearby water wells.

Not all agreed well integrity can be ruled out as a cause of the pollution. Cement jobs done to repair the protective casings on 20 percent of the wells studied call their integrity into question, said Anthony Ingraffea, a professor of engineering at Cornell University who reviewed the state report at the request of the Powder River Basin Resource Council, a Sheridan-based landowners group.

"What I found is totally expected," Ingraffea said. "A very high percentage of that subset of wells has had or still has an integrity problem, either with casing or with cement."

He echoed Jackson's comments on the shallowness of Pavillion's wells and said more study is needed to determine whether fracking or faulty wells are to blame for Pavillion's contaminated water.

A spokesman for Encana Corp., the operator of the decades old Pavillion gasfield, challenged Ingraffea's assessment. The fact repair work was done in the past doesn't mean wells' integrity is the cause, said Doug Hock.

"The measurement is the well leaking, and that is not the case," Hock said, adding later, "at the

end of the day they found no issue with the integrity of the wellbore."

Encana has submitted comments to the state on the draft report, he said. The company questioned the need to do additional testing called for in the preliminary investigation.

"They have two studies to do," Hock said. "Until they've done that, it seemed premature to recommend some of the things they were recommending."

The report called for more geologic and hydrologic study, as well as for more information on water wells and stimulation treatments like fracking conducted in the field.

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